ABSTRACT

An image is scaled by a desired scaling factor by using an upper scaling factor slightly greater than the desired scaling factor and a lower scaling factor slightly less than the desired scaling factor. The upper and lower scaling factors are applied to different parts of each horizontal or vertical line in the image. Both the upper and lower scaling factors are fractions with numerators and denominators less than the numerator and denominator of the desired scaling factor. The lower scaling factor may be obtained by decomposing the desired scaling factor into unit fractions. Regardless of the value of the desired scaling factor, the image can be scaled without the need for a large interpolation coefficient memory, and without resorting to iterated scaling and its attendant large data transfers.